

## 20. Collaboration in the first stage between Artificial Research by Application and Artificial Research by Deduction



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[Probabilidad Imposible: Collaboration in the first stage between Artificial Research by Application and Artificial Research by Deduction](#)

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The [collaboration process between Artificial Research by Application and by Deduction](#) is between both at the database level, which is going to be developed through different phases of development for the creation of the [Global Artificial Intelligence](#):

- 1) The collaboration process between both models for [Artificial Research](#) at the beginning must start as soon as the very first models of [Specific Artificial Intelligence for Artificial Research by Application](#) and the very first models of [Specific Artificial Intelligence for Artificial Research by Deduction](#), in any [synthetic science](#), discipline, activity, are ready, as very useful [experimentation](#) whose results are going to be really valuable in the next phase.
- 2) Upon those successful results, the collaboration goes on between all available working models of Specific Artificial Research by Application, in any synthetic science, discipline, or activity, and the very first model of [Artificial Research by Deduction in the Global Artificial Intelligence](#), whose database at the beginning is only a gigantic database, including all specific, bare or [standardized](#), databases from all synthetic science, discipline, activity. At the same time, another analogue process in Specific Artificial Intelligence for Artificial Research by Application could start: [the unification](#) of all databases of categories of all Specific Artificial Intelligence for Artificial Research by Application, in every synthetic science, discipline, and activity, in order to create a [unified database of categories](#), for the creation of the [Unified Application](#).
- 3) Once the standardization process has ended up creating a global matrix, there are two possible ways of collaboration: a) at the same time that the [global matrix](#) is ready, the unification process has already unified as well the databases of categories, 2) by the time that the global matrix is ready, has not been unified yet the databases of categories.

Depending on whether the unified database of categories is ready, the collaboration is different. Under the second scenario, the unified database of categories is still not ready. The collaboration is between Artificial

Research by Deduction in Global Artificial Intelligence and all those working models of Specific Artificial Intelligence for Artificial Research by Application in all synthetic sciences, disciplines, and activities. Under the first scenario, the collaboration is between Artificial Research by Deduction in the Global Artificial Intelligence and the Unified Application: that application whose database of categories unifies all databases of categories of all synthetic science, discipline, and activity.

- 4) Finally, the integration process, which depends on whether the Unified Application is ready, is totally different. If the Unified Application is ready, the integration process is only the integration of the global matrix and the unified database of categories. If the Unified Application is not ready, the integration process is the integration, into the global matrix, of all databases of categories of all the current working models of Specific Artificial Intelligence for Artificial Research by Application. But regardless of how the integration process is done, the final product of the integration process is the same. In the end, only one matrix, the matrix.

The process for the creation of the Global Artificial Intelligence is a permanent experimentation process in [artificial psychology](#), which if at the beginning, looks full of inconveniences and obstacles, like the huge capacity or memory needed, or the amount of energy, among others, as long as sciences and technology progress, these problems are going to be solved sooner or later.

While technological challenges exist, one of the less obvious but significant hurdles may be the scepticism of those who view Global Artificial Intelligence as too ambitious or unrealistic. Overcoming such doubt will require sustained demonstration of feasibility through successful early experiments.

For its creation, the very first steps are going to be really tiny, very small, but if successful, are the necessary impulse for the next range of experiments, at every time more and more ambitious, going further and further.

By the time the first experiments in Specific Artificial Intelligence by Application, and the first experiments in Specific Artificial Intelligence by

Deduction, have successful results, they are going to be put into practice in more synthetic sciences, disciplines, and activities, up to the point that, after a wide range of successful experiments in different synthetic sciences, disciplines, and activities, the possibility of integration of all of them in only one, is real and unavoidable.

Since the first experiments in Specific Artificial Intelligence for Artificial Research, by Application and by Deduction, the possible collaboration between them must be present, due to experiments in possible models of collaboration will shape their future integration.

One of the most important reasons for the collaboration is the fact that Artificial Research by Deduction only can make deductions among those [factors](#) included in the database, so it cannot make deductions about anything outside the database, while Artificial Research by Application is able to identify new categories and include them in the database.

This significant difference between them is what is going to make their collaboration really valuable, due to while by Deduction is not possible to change the database (only the comprehensive model), by Application it is possible to change the database.

So the dialectic between Deduction and by Application is as follows: by Application, changes in the database are possible, changes that can produce changes in the comprehensive model by Deduction.

In synthesis, the collaboration between by Application and by Deduction is based on: 1) the double check, especially when the global matrix is ready. The Artificial Research by Deduction in the Global Artificial Intelligence tracks the global matrix, while either the Unified Application tracks the real world, or if not ready yet, then all the current working models of Specific Artificial Intelligences for Artificial Research by Application, in all synthetic sciences, disciplines, activities, track the real world, 2) all new categories found tracking the real world (by one way or another) can be transformed into factors to include within the global matrix.

Any change in the global matrix by the inclusion of new categories as factors, as a result of the collaboration process between Application and Deduction, is a change that can produce changes in the global model.

All this process of collaboration involves the three stages of [application](#) (database), [replication](#), and [auto-replication](#). Above all of them, in this post, I will develop the way in which this collaboration works in the database.

At the first stage level, in any matrix from any model of Artificial Research by Deduction (working either within the Global Artificial Intelligence or within a Specific Artificial Intelligence in any specific synthetic science, discipline, or activity), as long as the matrix is designed including, factors as [subjects](#) ([measured](#) by [direct](#) [punctuations](#)) and factors as [options](#) (by [frequencies](#)), then all those factors as options are suitable for the consideration as categories in a possible list of categories as a database of categories for a Specific Artificial Intelligence for Artificial Research by Application, whose database of categories could be, for instance, a list of factors as options taken from a matrix, global or specific.

So, the thing is not only how to exchange new categories (auto-replications) from Artificial Research by Application in order to become new factors to include in a matrix of Artificial Research by Deduction. The thing is that even factors from the specific or global matrix of the Artificial Research by Deduction can be taken as categories to include in the database in Artificial Research by Application.

For instance, having a Specific Artificial Intelligence for Artificial Research by Deduction in the tectonics of the Earth, whose flow of data integrates the flow of direct punctuations from those factors as subjects, and flow of data from those factors as options, then all those factors as options of possible tectonic phenomena, such as earthquakes (distinguishing as factors different categories of earthquakes depending on their intensity), volcanoes (distinguishing as factors different categories of volcanoes depending on their intensity), faults (distinguishing as factors different categories of faults depending on their depth and width), tsunamis (distinguishing as factors different categories depending on the height of the waves), ...are factors as options suitable to work as a list of possible tectonic categories.

In case we want to study the tectonic phenomena on Mars or other celestial bodies, we could take the list of factors as options from the Earth, to be used on Mars or other celestial bodies, using this list of factors as options as a database of categories for a Specific Artificial Intelligence for Artificial Research by Application in tectonics.

The application could be used by thousands of thousands of robotic devices across the universe in multiple space missions, to study the distribution of this phenomenon in all kinds of celestial bodies. When finding out any new tectonic phenomenon not included yet in the database (for instance, earthquakes, volcanoes, faults, whose intensity or structure is bigger than any other one ever found on the Earth), the possibility of including in the database any new tectonic phenomenon found out in other celestial body, that later on even it could be incorporated within the specific matrix of that Specific Artificial Intelligence for Artificial Research by Deduction in the tectonics of the Earth.

Or vice versa, having previously designed a Specific Artificial Intelligence for Artificial Research by Application in tectonics, whose database of categories is formed by all kinds of categories related to tectonics, such as different categories of intensity, depth, and width, of quakes, volcanoes, tsunamis, faults, to install in all kind of space missions across the universe, this database of tectonic phenomena could be used as well as a possible list of factors as tectonic options whose flow of frequency could be integrated in the specific matrix in a Specific Artificial Intelligence for Artificial Research by Deduction in the tectonics of the Earth.

Or even the possibility that, at the same time that a Specific Artificial Intelligence for Artificial Research in tectonics, either by Application or by Deduction, is building, starts at the same time the construction of a Specific Artificial Intelligence for Artificial Research, either by Deduction or by Application.

At the same time that any Specific Artificial Intelligence for Artificial Research by Deduction is built, including in its specific matrix factors as subjects and factors as options, all those factors as options can be used as well as the database of categories in a Specific Artificial Intelligence for



Artificial Research by Application in the same synthetic science, discipline, or activity.

Or, at the same time that any Specific Artificial Intelligence for Artificial Research by Application is built, the database of categories could be integrated as a list of options, to integrate along with all those factors as subjects, in the specific matrix of a Specific Artificial Intelligence for Artificial Research by Deduction in a synthetic science, discipline, or activity.

What is going to make a difference in the results given by these Specific Artificial Intelligences for Artificial Research, by Deduction or Application, in the same synthetic science, discipline, or activity, is the fact that: the results of Artificial Research by Deduction have spatial limits, tracking a specific matrix within the spatial limits where it has been designed, while the Artificial Research by Application is going to track the real world without having a priori any spatial limit, being able to give results even from the further corners of the universe, wherever any robotic device in which the application has been installed works.

In the same way that studies in tectonics, as well in climatology, all the factors as options in a specific matrix within the Specific Artificial Intelligence for Artificial Research by Deduction in the climatology of the Earth, are going to be factors as options suitable to be considered as categories for a database of climatic events, to integrate as a database of a Specific Artificial Intelligence for Artificial Research by Application, suitable to be installed in any robotic device that through this application could study the distribution of climatic events in any celestial body in any part of the universe.

Or vice versa, in a database of climatic events in a Specific Artificial Intelligence for Artificial Research by Application in climatology, the climatic categories in the database could be considered as options to be integrated as factors, along with those factors as subject, in a specific matrix in a Specific Artificial Intelligence for Artificial Research by Deduction climatology.

Or even much better, at the same time that a Specific Artificial Intelligence for Artificial Research, either by Application or by Deduction, is built, starts at the same time the construction of a Specific Artificial Intelligence for Artificial Research, either by Deduction or Application, using those factors as options or categories as exchangeable factors to integrate: in a specific database of climatic categories to track any climatic event in any celestial body across the universe by those robotic devices in which the application has been installed, or in a specific matrix of climatology, along with all those factors as subjects, to track by deduction within its spatial limits.

In the same way that in tectonics and climatology, the possible study of gravity anomalies through Artificial Research by Application or by Deduction: the list of possible categories of gravity anomalies, depending on their intensity, could be used as a list of categories in a specific database for a Specific Artificial intelligence for Artificial Research by Application for gravity anomalies, or a list of categories of factors as options (along with all those factors as subjects) in a specific matrix in a Specific Artificial intelligence for Artificial Research by Deduction for gravity anomalies.

At the database level, one of the most important ways for the collaboration between these two models of intelligence is exchanging categories or factors which work as options. In Deduction, these factors as options are integrated into the specific or global matrix along with all those factors as subjects whose measurement is made by direct punctuation. In Application, these factors as options are directly the categories which form the database of categories.

The reason why I have started this explanation about collaboration by Application and by Deduction using as examples Specific Artificial Intelligences for Artificial Research by Deduction is that this is a good example of how from the outset is possible to start the collaboration process between Specific Artificial Intelligences by Deduction and Specific Artificial Intelligences by Application.

As soon as the first experiments in Specific Artificial Intelligence for Artificial Intelligence by Application and the first Specific Artificial Intelligence for Artificial Research by Deduction, in any synthetic science,



discipline, or activity, are ready, they must start the collaboration between them, because the collaboration between them, in these early moments in the foundation of these models of Specific Artificial Intelligence, will come up the first bricks for the construction of the Global Artificial Intelligence.

A good example of how the very first model of Global Artificial Intelligence is going to run is precisely the way in which, having ready several models of Specific Artificial Intelligence for Artificial Research by Deduction, such as in tectonics, climatology, gravity anomalies, then an early process of standardization of all Specific Artificial Intelligences within the Global Artificial Intelligence is going to look like a process of normalization of all these good examples of Specific Artificial Intelligence for Artificial Research by Deduction, in tectonics, climatology, and gravity anomalies, into the Artificial Research by Deduction in the Global Artificial Intelligence.

This process of standardization at least within the examples given, would mean, for instance, that all factors must be defined in quantitative terms, and able to provide a flow of data, within the spatial limits in which this very first model of Global Artificial Intelligence is going to work: national, continental, or planetary level; and another very important thing in this process of standardization is the fact that all the measurements in direct punctuations must be done using the same measurement scales, what that means, for instance: if the area is measured in meters square, then space must not be measured in miles, or weight in pounds; all the measurements should be made in metric scale, and another important thing, the way in which decimals are written, while in some countries the decimals go after the point in others after the comma.

In order to avoid any confusion, all the [mathematical](#) signs and scales of measurement within a Global Artificial Intelligence should use those under the international conventions. All these apparently pretty menial details form part of the standardisation process and are going to be really important by the time the Global Artificial Intelligence evolves to become a true singularity.

The standardisation process must finish integrating all specific matrices from all Specific Artificial Intelligences for Artificial Research by Deduction in only one global matrix.

One example about how this process of standardization looks like, could be, for instance, the integration of Specific Artificial Intelligence for Artificial Research for tectonics, climatology, and gravity anomalies, in only one Artificial Research by Deduction, which in turn if, in addition to these ones, it would be able to integrate in the same way absolutely all the existing Specific Artificial Intelligences for Artificial Research by Deduction, in all sciences, disciplines, and activities, then that Artificial Research by Deduction whose database would be the result of the standardization process of all existing specific matrix in only one, the global database, in that case that Artificial Research by Deduction whose database is the global matrix, will be the only one Artificial Research by Deduction working in the Global Artificial Intelligence.

If in a global matrix of such characteristics, factors as options are standardized related to: categories distributed in intensity, depth, width, of quakes, volcanoes, and faults, as well as different categories of climatic events distributed in the same way according to their intensity, and also different categories of the intensity of gravity anomalies; then there are two possibilities, depending on, as long as the global matrix is created, the creation of a unified database of categories within the Unified Application.

If the global matrix is ready, but there is no Unified Application, so instead of a Unified Application, what still exists is a set of Specific Artificial Intelligences for Artificial Research by Application, in this example, this set concretely is formed by the Specific Artificial Intelligence for Artificial Research by Application in tectonics, another one in climatology, and the last one in gravity anomalies, under this scenery not having a Unified Application, then the different Specific Artificial Intelligences for Artificial Research by Application in each synthetic science, discipline, or activity, will maintain their previous collaboration, but instead of collaboration with its respective Specific Artificial Intelligence by Deduction in tectonics, climatology, gravity anomalies, this collaboration is with the Artificial Research by Deduction in the Global Artificial Intelligence. So, every new category as a result of every new discovery made by any Specific Artificial Intelligence by Application in tectonics, climatology, or gravity anomalies, is going to be an object to become a new factor as an option within the global matrix, a new factor whose flow is going to be a flow of frequencies, as in any other factor as an option within the global matrix.

But the good thing of this new level of collaboration is the fact that if any supposed new category discovered by any specific Application, in tectonics, climatology, gravity anomalies, because it was not previously in its specific database, but for any chance it is a category that for any other reason is already included in other different taxonomy, classification, or list of categories, from any other different science, discipline, or activity, already integrated in the global database, then as soon as the supposed new category for this specific Application is going to be integrated within the global matrix, and the global matrix finds similarities between this supposed new category and any other existing category from any other different database of categories, or similarities between this supposed new category and any other factor as option from any other former Specific Artificial Intelligence for Artificial Research by Deduction in any other synthetic science, discipline, or activity, already standardized in the global matrix, as soon as this supposed new category coming up from an specific Application is found existing in the global matrix, this new category is rejected as a new discovery, being only added in that database of that specific application from which it emerged.

Finally, in the same way that in the previous phase was possible to exchange those categories or factors as options between Specific Artificial Intelligence by Application and Specific Artificial Intelligence by Deduction, once the Artificial Research by Deduction in the Global Artificial Intelligence starts tracking the global matrix, as a result of the standardization process, the possibility that taking all those factors as options within the global database as a database of categories, this database of categories could be used as a unified database of categories for an Specific Artificial Intelligence for Artificial Research by the Unified Application.

The unified database of categories, for the creation of a Unified Application, could emerge in two possible ways: 1) taking from the global matrix all those factors as options, so the list of all factors as options would be a unified database of categories, 2) adding in one database all databases of categories from all the Specific Artificial Intelligences for Artificial Research by Application in all synthetic sciences, disciplines, or activities.

Whether the unified database of categories is a product of taking a list of factors as options from the global matrix or adding databases of categories from all Specific Artificial Intelligences for Artificial Research by Application, in any case the result is the same: the formation of a unified database of categories that is going to be the first stage in the design of the Unified Application able to integrate itself categories from all synthetic sciences, disciplines and activities.

If we have to send a space mission to a new planet recently discovered, and we want to study the distribution of tectonic and climatic events, or whether there is any gravity anomaly, instead of sending within the spaceship a robotic device in which we have previously installed three different Specific Artificial Intelligences for Artificial Research by Application: one in tectonics, another one in climatology, and the last one in gravity anomalies; another possible option, and possibly much better, is to install in the robotic device a Unified Application, the same Unified Application that could work in thousands of thousands of robotic devices across the universe, integrating into this Unified Application not only categories related to: tectonics, climatology, gravity anomalies; but integrating within the unified database of categories all possible categories from all synthetic sciences, disciplines, and activities, although not all of them are going to be used.

But, who knows, in a spaceship with crew on board, to have a Unified Application capable of making studies based on categories in any science, discipline, or activity, in case any member of the crew would need medical advice, the same Unified Application could assess him, comparing the quantitative description of his symptoms with those medical categories already existing, and standardized in quantitative terms as well in the unified database of categories.

The creation of a Unified Application, along with the global matrix, could be really powerful tools in the study and investigation of any phenomenon, although, even if the Unified Application is created taken from the global matrix, the list of those factors as options suitable to be included in the unified database of categories, even in that case, not for that reason, because the categories already exist in the global database, the integration process is finished.

While the global database only works at the national, continental, or planetary level, the completion of the integration process is not possible, due to while the global matrix only gives results at the national, continental, or planetary level, the Unified Application works at the universal level.

Only when the global database is able to cover the entire universe, the integration process could be completed, integrated within the same matrix, the matrix, all the information comes from one corner to another of the universe.

Only then, when the global database becomes the matrix, the Global Artificial Intelligence starts its authentic journey, for what it has been created: the [knowledge](#) about what is really happening, even [beyond human understanding](#).

Rubén García Pedraza, London 1th of April of 2018  
Reviewed 12 August 2019 Madrid.

Reviewed 9 August 2023 Madrid.

Reviewed 4 May 2025, London, Leytostone

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